

<b>FAX TRANSMISSION</b>		<b>RECEIVED</b> <b>CENTRAL FAX CENTER</b> <b>JUL 18 2006</b>
DATE: <i>July 18, 2006</i>		
PTO IDENTIFIER: Application Number 10/559,493-Conf. #8701 Patent Number		
Inventor: Marco Bosch et al.		
MESSAGE TO: US Patent and Trademark Office		
FAX NUMBER: (571) 273-8300		
FROM: CONNOLLY BOVE LODGE & HUTZ LLP Ashley I. Pezzner		
PHONE: (302) 658-9141		
Attorney Dkt. #: 12810-00175-US		
PAGES (Including Cover Sheet): 10		
CONTENTS:	Transmittal Of International Preliminary Report On Patentability International Preliminary Report On Patentability Certificate of Transmission (1 page)	
<p>If your receipt of this transmission is in error, please notify this firm immediately by collect call to sender at (302) 658-9141 and send the original transmission to us by return mail at the address below.</p> <p>This transmission is intended for the sole use of the individual and entity to whom it is addressed, and may contain information that is privileged, confidential and exempt from disclosure under applicable law. You are hereby notified that any dissemination, distribution or duplication of this transmission by someone other than the intended addressee or its designated agent is strictly prohibited.</p> <p><b>CONNOLLY BOVE LODGE &amp; HUTZ LLP</b> 1007 North Orange Street, P.O. Box 2207, Wilmington, Delaware 19899 Telephone: (302) 658-9141 Facsimile: (302) 658-5614</p>		

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JUL 18 2006 4:06PM

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CENTRAL FAX CENTER  
JUL 18 2006

NO. 2328 P. 2/10

Application No. (if known): 10/559,493

Attorney Docket No.: 12810-00175-US

## Certificate of Transmission under 37 CFR 1.8

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Transmittal Of International Preliminary Report On Patentability  
International Preliminary Report On Patentability

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JUL 18 2006 4:06PM

NO. 2328 P. 3/10

Docket No.: 12810-00175-US

Application No.: 10/559,493

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
Marco Bosch et al.

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CENTRAL FAX CENTER

JUL 18 2006

Application No.: 10/559,493

Confirmation No.: 8701

Filed: December 5, 2005

Art Unit: N/A

For: METHOD FOR INCREASING THE CUTTING  
HARDNESS OF A MOLDED BODY

Examiner: Not Yet Assigned

**TRANSMITTAL OF INTERNATIONAL PRELIMINARY REPORT ON  
PATENTABILITY**

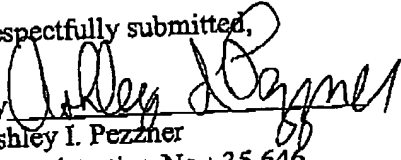
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Applicant submits herewith the International Preliminary Report On Patentability issued in the corresponding international application. The PCT Examiner noted that claims 18 and 19 had novelty and claims 1-25 had industrial applicability.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 03-2775, under Order No. 12810-00175-US.

Respectfully submitted,

By   
Ashley I. Pezzner

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Translation

## PATENT COOPERATION TREATY

## PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>0000054630</b>	FOR FURTHER ACTION See Form PCT/IEPA/416	
International application No. <b>PCT/EP2004/006035</b>	International filing date (day/month/year) <b>04.06.2004</b>	Priority date (day/month/year) <b>06.06.2003</b>
International Patent Classification (IPC) or national classification and IPC		
Applicant <b>BASF AKTIENGESELLSCHAFT</b>		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 7 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

- a. ☒ (sent to the applicant and to the International Bureau) a total of 3 sheets, as follows:
- ☐ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
  - ☒ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in Item 4 of Box No. I and the Supplemental Box.
- b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s))

\_\_\_\_\_ containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

- ☒ Box No. I Basis of the report
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IEPA/EP	Authorized officer
Facsimile No.	Telephone No.

Form PCT/IEPA/409 (cover sheet) (January 2004)

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/006035

Box No. 1 Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language \_\_\_\_\_ which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):
- ☐ the international application as originally filed/furnished
- ☒ the description: \_\_\_\_\_ as originally filed/furnished
- pages 1-14
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the claims: \_\_\_\_\_ as originally filed/furnished
- nos. 1-25
- nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19
- nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ the drawings: \_\_\_\_\_ as originally filed/furnished
- sheets \_\_\_\_\_
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (specify): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (specify): \_\_\_\_\_
4. ☒ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages \_\_\_\_\_
- ☒ the claims, nos. 1-21
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (specify): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (specify): \_\_\_\_\_
- \* If item 4 applies, some or all of those sheets may be marked "superseded."

Form PCT/PEA/409 (Box No. 1) (January 2004)

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY		International application No. PCT/EP2004/006035
Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement	
<b>1. Statement</b>		
Novelty (N)	Claims <u>18, 19</u>	YES
	Claims <u>1-17, 20-25</u>	NO
Inventive step (IS)	Claims _____	YES
	Claims <u>1-25</u>	NO
Industrial applicability (IA)	Claims <u>1-25</u>	YES
	Claims _____	NO
<b>2. Citations and explanations (Rule 70.7)</b>		
<p>1. This report makes reference to the following documents:</p> <p>D1: EP-A-1 192 993 (TOSOH CORP), 3 April 2002 (2002-04-03)</p> <p>D2: EP-A-0 130 407 (NITTO CHEMICAL INDUSTRY CO LTD), 9 January 1985 (1985-01-09)</p> <p>D3: WO 91/04943 A (EXXON RESEARCH ENGINEERING CO), 18 April 1991 (1991-04-18)</p> <p>D4: EP-A-1 215 211 (BASF AG), 19 June 2002 (2002-06-19)</p> <p>D5: EP-A-0 842 936 (AIR PROD &amp; CHEM), 20 May 1998 (1998-05-20)</p> <p>2. INDEPENDENT CLAIM 1</p> <p>2.1 The present application does not meet the requirements of PCT Article 33(1) because the subject matter of claim 1 is not novel (PCT Article 33(2)). Document D1 discloses (example 1) an H-ZSM-5-containing extrudate treated with a gas that contains 92% steam at a temperature of 355°C for a period of seven days. The absolute pressure</p>		

Form PCT/ISA/409 (Box No. V) (January 2004)

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/006035

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
	<p>can be an atmospheric pressure, an increased or a reduced pressure ([0042])). This (implicitly) increases cutting hardness.</p>
2.2	<p>The present application does not meet the requirements of PCT Article 33(1) because the subject matter of claim 1 is not novel (PCT Article 33(2)). Document D2 discloses (see the passages cited in the search report) zeolite catalysts which are treated with a steam-containing gas at a temperature from 250 to 700°C and an absolute pressure of 1-70 Atm over a period of 1-400 hours. In example 1, the zeolite catalyst is a mordenite extrudate. This also (implicitly) increases cutting hardness.</p>
2.3	<p>The present application does not meet the requirements of PCT Article 33(1) because the subject matter of claim 1 is not novel (PCT Article 33(2)). Document D3 discloses (claims 1 and 5) a process for producing zeolite aggregates by forming a mouldable paste, then moulding the paste into an aggregate (moulding), hardening the aggregate, then hydrothermally calcining the hardened aggregate for a sufficient period of time to make the aggregate stronger and harder.</p>
3.	<p>INDEPENDENT CLAIM 15</p>
3.1	<p>The present application does not meet the requirements of PCT Article 33(1) because the subject matter of claim 15 is not novel (PCT</p>

Form PCT/ISA/409 (Box No. V) (January 2004)

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY		International application No. PCT/EP2004/006035
Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement	
	<p>Article 33(2)). The extrudate described in D1 (see also above) is used in a process for producing TEDA starting from N(2-aminoethyl)piperazine and water (example 1). Other preferred starting materials are ethylene diamines or piperazines.</p>	
4.	INDEPENDENT CLAIM 22	
4.1	<p>The present application does not meet the requirements of PCT Article 33(1) because the subject matter of claim 22 is not novel (PCT Article 33(2)) (see point 3.1 above).</p>	
5.	INDEPENDENT CLAIM 23	
5.1	<p>The present application does not meet the requirements of PCT Article 33(1) because the subject matter of claim 23 is not novel (PCT Article 33(2)) (see point 3.1 above).</p>	
5.2	<p>The present application does not meet the requirements of PCT Article 33(1) because the subject matter of claim 23 is not novel (PCT Article 33(2)). Document D2 discloses methanol amination in the presence of a catalyst, cutting hardness being previously increased by a process as per claim 1 (see point 2.2 above).</p>	
5.3	<p>The present application does not meet the requirements of PCT Article 33(1) because the subject matter of claim 23 is not novel (PCT Article 33(2)). Document D3 discloses (claims 1</p>	

Form PCT/ISA/409 (Box No. V) (January 2004)



Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
	<p data-bbox="418 394 1299 667">and 5) a process for producing zeolite aggregates by forming a mouldable paste, moulding the paste into an aggregate (moulding), hardening the aggregate and hydrothermally calcining the hardened aggregate for a sufficient period of time to make the aggregate stronger and harder.</p> <p data-bbox="423 716 1252 806">These aggregates are used in chemical synthesis processes.</p> <p data-bbox="326 869 781 898">6. INDEPENDENT CLAIM 25</p> <p data-bbox="326 953 1224 1121">6.1 The present application does not meet the requirements of PCT Article 33(1) because the subject matter of claim 25 is not novel (PCT Article 33(2)) (see points 5.1-5.3 above).</p> <p data-bbox="331 1184 1003 1213">7. DEPENDENT CLAIMS 2-14, 16-21, 24</p> <p data-bbox="440 1268 1284 1486">Claims 2-14, 16-21 and 24 do not contain any features (even with respect to D4 and D5) which, in combination with the features of any claim to which they refer, meet the PCT novelty or inventive step requirements.</p>

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/006035

## Supplemental Box

In case the space in any of the preceding boxes is not sufficient.  
Continuation of:

**BOX 1**

The amendments submitted with the letter of 5 April 2005 introduce substantive matter which goes beyond the original disclosure in the international application as filed, thereby contravening PCT Article 34(2)(b). This concerns the following amendments:

The original claim 1 has been amended by inclusion of specific selections of features from the original dependent claims 9, 10 and 13 (i.e. silicon and/or zirconium oxide were selected from a plurality of oxides and combined with a particular steam content and a calcination step). This specific combination of selected features cannot be unambiguously found in the original disclosure.

None of the examples appears to contain all these features in an unambiguous manner.

Pursuant to PCT Rule 70.2(c), this report has been established without taking into account these features (i.e. it is based on the original claims).